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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/578,904	05/26/2000	Robert R. Bushey	P19004	8391

7055 7590 12/17/2003

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RESTON, VA 20191

EXAMINER

BAUTISTA, XIOMARA L

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/578,904

Applicant(s)

BUSHEY ET AL.

Examiner

X L Bautista

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 5, 8, 13, and 16 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed 9/30/03 with respect to claims 1-4, 6, 7, 9-12, 14, 15, 17, and 18 have been fully considered but they are not persuasive.
  - A. Applicant argues (claim 1) that "Gerace does not disclose or suggest... 'categorizing a user population'... Gerace only relate to creating a customized user interface and a targeted advertising module, using information derived from tracking the viewing habits of the user." (page 8, lines 7-12).

In response, Gerace discloses a software program 31 that records users's selections, viewing activities, viewing actions or viewing habits. Program 31 creates a user profile for the collected information, then generates a view or home page including the users's preferred information; and displays the customized home page for those users (col. 4, lines 12-47). Program 31 enables user customization of the home page. To that end, one category at a time is addressed to define a default; data appears in order of most frequently selected categories of the users; categories that a user selects to view further are added (col. 11, lines 46-56). Gerace teaches an object 33c that provides indication of whether a given advertisement should be displayed, the category of the information, and

demographic group pre-requested by a sponsor to be shown that advertisement (col. 12, lines 23-42; col. 13, lines 1-12; col. 17, lines 1-17; col. 18, lines 10-26, 64-67; col. 19, lines 1-6; col. 20, lines 49-51, 63-67; col. 21, lines 5-11, 53-65). This means that the invention categorizes groups of users and determines what kind of advertisement (or programs) should be displayed to these different groups of users.

B. Applicant argues (claim 1) that "Gerace does not disclose or suggest the 'at least two groups'...rather, each user in Gerace is 'unique', and therefore not categorized 'groups'...the...'profile' and targeted advertising of Gerace, do not relate to 'describing the categorized user behavior characteristics and user preferences, and modeling'" (page 9, lines 1-6).

In response, see response to argument A. Gerace discloses that content of categories of interest and display format in each category are revealed by the psychographic profile, based on user viewing information. Using the profile, advertisements are displayed to selected users. Based on recorded responses of a set of users viewing the advertisements, the target user profile is refined (abstract). Gerace teaches a tracking and profiling member for recording user activity, which also records demographics of each user; the data assembly transmits advertisements for display to users based on psychographic and demographic (study of human population (one or more) profiles of users to provide targeted marketing (col. 2, lines 1-34).

C. Applicant argues (claim 1) that “the customized profiles of Gerace do not disclose ‘modeling the described behavioral characteristics and user preferences’...because any behavioral characteristics and/or user preferences in Gerace are not disclosed to be ‘categorized’ or ‘described’” (page 9, lines 10-13).

In response, see response to argument B. Gerace teaches categorized (classified) or described (observed, perceived, represented) behavioral user characteristics and preferences (col. 2, lines 1-34; col. 12, lines 23-42; col. 13, lines 1-12; col. 17, lines 1-17; col. 18, lines 10-26, 64-67; col. 19, lines 1-6; col. 20, lines 49-51, 63-67; col. 21, lines 5-11, 53-65).

D. Applicant argues (claim 1) that “Gerace does not apply models to...‘interactive interface testing’...Gerace does not appear to disclose any testing whatsoever, let alone ‘interactive interface testing’ that relates to ‘qualitative and quantitative models’...Gerace actually discloses automated and real time adjustment of ‘intended audience profile of advertisements’” (page 9, lines 14-20).

In response, claim 1 recites “...applying said [qualitative and quantitative] models to interface design, interactive interface testing, and interface system deployment.” Gerace discloses describing (observing, perceiving) qualitative models (model=plan or form after a pattern; for example: colors used, orientation of the screen (interactive interface testing), etc.) and quantitative models (for example: number of times users have requested more information regarding a program or advertisement; number of purchases obtained (interactive interface

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testing, etc.). Gerace teaches that program 31 tracks demographic and psychographic criteria of users, performs an analysis of the tracked criteria, which results in testing to determine significance and weight of the criteria; and then generates a tailored interface that displays appropriate programming or advertisement to the user (col. 5, lines 15-35; col. 15, lines 25-56; col. 17, lines 1-17).

E. Applicant argues (claim 3 and claim 11) that “the continued adjustment of the advertising module in Gerace is not ‘validating’ the user behaviors and user preferences, at least because, in adjusting the model, Gerace does not disclose that a particular user behavior may be found, e.g. invalid (page 11, lines 3-8).

In response, claim 3 recites “...categorizing at least two users into at least two groups based on at least one of user behaviors and user preferences... validating targeted user behaviors and user preferences...” and claim 11 recites “...documenting and validating pre-determined targeted behaviors and preferences...” Gerace discloses categorization (classification) of two or more users into groups based on their history (behavior) and/or pattern of activity (preferences); a profile is inferred from these recorded activities that enables the data assembly to customize presentation of information for display (col. 2, lines 5-23). That is, the user behavior and/or preferences have to be documented (annotated, recorded, stored) and accepted (validated) before generating a profile and customizing the presentation or interface.

F. Applicant argues (claims 3 and 11) that "there is absolutely no disclosure that Gerace tracks design requirements in any way, let alone 'for the validated...behaviors and...preferences'" (page 11, lines 9-13).

In response, Gerace discloses that both subject matter/content and presentation of advertisements are able to be customized to the end user's preferences due to the information tracked and recorded (created user profile) by program 31 (col. 4, lines 29-35). The invention records categories of interest and the user's display preferences of each category (design requirements for validated behaviors and preferences) to generate and display appropriate screen views to the user (col. 4, lines 37-47, 50-55).

G. Applicant argues (claim 11) that "Gerace does not disclose or suggest any manner of testing a design, let alone iteratively testing a design...Gerace merely discloses adjusting an advertising module to ensure advertisements are targeted to a proper audience." (page 11, lines 10-15).

In response, see response to argument D.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in

public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**4. Claims 1-4, 6, 7, 9-12, 14, 15, 17, and 18 are rejected under 35**

**U.S.C. 102(b) as being anticipated by *Gerace* (US 5,848,396).**

**Claim 1:**

Gerace discloses a method for designing a customized user interface that categorizes a user population into groups using qualitative and quantitative models; and applies the models into interface design (abstract; col. 2, lines 3-23, col. 4, lines 1-47; col. 5, lines 27-31), interactive interface testing (col. 15, lines 25-44), and interface system deployment (col. 34, lines 29-40; col. 35, lines 7-13; col. 36, lines 22-26).

**Claim 2:**

See claim 1. Gerace teaches a methodology for categorizing, describing, and modeling a user population into groups based on behavioral characteristics and/or user preferences (abstract; col. 2, lines 3-23, col. 4, lines 1-47; col. 11, lines 24-42; col. 14, lines 4-24; col. 17, lines 1-17).

**Claim 3:**

See claim 1. Gerace teaches a method for designing a customized user interface, categorizing users into groups, describing the categorized user behaviors and user preferences, validating targeted user behaviors and preferences (col. 4, lines 12-47; col. 11, lines 46-56); capturing emergent behaviors and preferences (col. 2, lines 1-



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29); tracking design requirements and implementations (col. 2, lines 30-60); accommodating diversity in performance and preference during testing (col. 15, lines 25-44); and customizing a user interface design to the user(s), (cols. 7-10; col. 11, lines 24-42; col. 14, lines 4-23; col. 17, lines 1-17). Gerace teaches categorizing groups of users and determining what kind of advertisement (or programs) should be displayed to these different groups of users (col. 12, lines 23-42; col. 13, lines 1-12; col. 17, lines 1-17; col. 18, lines 10-26, 64-67; col. 19, lines 1-6; col. 20, lines 49-51, 63-67; col. 21, lines 5-11, 53-65).

Claims 4 and 12:

Gerace discloses a method for designing a customized user interface that can be incorporated into business/negotiation system (col. 1, lines 14-22, 52-65; col. 20, lines 52-67).

Claims 6 and 14:

Gerace discloses a user interface that can be incorporated based on an interface provided on the Internet (col. 1, lines 30-67; col. 3, lines 39-62; col. 4, lines 1-11).

Claims 7 and 15:

Gerace discloses a user interface that can be incorporated into an interactive graphic user interface system (col. 1, lines 30-44).

Claims 9 and 17:

Gerace discloses a user interface that can be incorporated into a computer

operating system (col. 12, lines 43-56).

**Claims 10 and 18:**

Gerace discloses an interface that can be incorporated into a television programming interface (col. 1, lines 18-22; col. 10, lines 9-22; col. 22, lines 43-52; col. 36, lines 49-58).

**Claim 11:**

See claims 1-3. Gerace teaches user selection and customization of content and display of information (col. 11, lines 24-56); creation of user profile (col. 2, lines 1-60); and development of a customized user interface for groups of users according to design requirements (abstract; col. 4, lines 44-47; col. 5, lines 26-34; col. 7-10; col. 12, lines 22-33; col. 13, lines 1-12; col. 14, lines 4-23; col. 16, lines 30-55; col. 17, lines 1-17; col. 18, lines 10-25; col. 20, lines 63-67; col. 21, lines 5-11), and testing the design (col. 5, lines 15-35; col. 15, lines 25-56; col. 17, lines 1-17).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**6. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Gerace* in view of *Hoffberg et al* (US 5,875,108).**

Gerace teaches screen views of telephone directory pages (col. 16, lines 37-55) but fails to teach that the user interface can be incorporated into a telephone system. However, Hoffberg discloses an adaptive interface for a programmable system, for predicting a desired user function, based on user history, as well as machine internal status and context (abstract; col. 26, lines 38-50). Hoffberg teaches an interface system that predicts a desired action based on the user input, a past history of use, a context of use, and a set of predetermined or adaptive rules (col. 26, lines 51-62; col. 27, lines 22-35; col. 29, lines 10-18; col. 30, lines 60-67; col. 31, lines 58-67). The system determines a program preference for one or more individuals, formulates a group preference (col. 34, lines 35-39, 51-67; col. 35, lines 1-35), and provides a tailored interface adapted to the characteristics of the user (col. 63, lines 15-39). Hoffberg discloses an interface that can be used to control complex telecommunications functions of advanced telephone and telecommunications equipment (col. 88, lines 65-67; col. 89, lines 1-11).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gerace's method for determining behavioral profile of a user to include Hoffberg's interface incorporating adaptive pattern recognition because as Hoffberg says, this interface would provide the user with an optimized environment for human interaction by providing an intelligent and

enhanced interface that adapts to the behavior or preferences of the user.

**7. Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Gerace* in view of *Vanderheiden et al* (US 6,624,803 B1).**

Gerace does not teach that the interface can be incorporated into an automated teller machine. However, Vanderheiden discloses an interface for electronic devices that permit improved access to the functions of the devices (abstract; col. 2, lines 16-23). Vanderheiden teaches a system 10 including a display 12 having a display area 14, a modem 42 that connects the computer bus 24 to a telephone line 44 to provide access to a remote computer, such as a central bank computer if the touch screen system 10 is used as a remote terminal in an automated teller machine (ATM) or the like (col. 5, lines 30-50; col. 6, lines 35-39; col. 16, lines 63-67; col. 17, lines 54-59; col. 19, lines 52-61; figs. 14 and 16). The system allows users to select information and to indicate preferences (col. 13, lines 66-67; col. 14, lines 1-5). Thus, it would have been obvious to one ordinarily skilled in the art at the time of invention to include Vanderheiden's teachings of implementing an adaptive interface in an automatic teller machine in Hoffberg's computer network method because such interface would provide the ATM's user with functions that would improve their ease of use and/or menus that would speed selection of desired services.

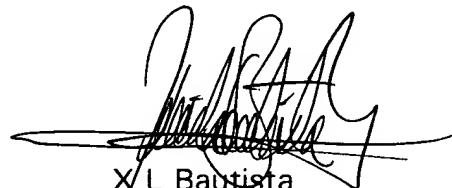
***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to X L Bautista whose telephone number is (703) 305-3921. The examiner can normally be reached on M-Th (8:00-18:00) Fridays Off.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W Cabeca can be reached on (703) 308-3116. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

11. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



X L Bautista  
Patent Examiner  
Art Unit 2173

xlb  
December 8, 2003